

LEGISLATIVE AUDIT DIVISION

Scott A. Seacat, Legislative Auditor
John W. Northey, Legal Counsel



Deputy Legislative Auditors:
Jim Pellegrini, Performance Audit
Tori Hunthausen, IS Audit & Operations
James Gillett, Financial-Compliance Audit

June 7, 2003

TO: Legislative Audit Committee Members

FROM: Tori Hunthausen, Deputy Legislative Auditor, Information Systems (IS) Audits

RE: IS Support Work on Montana State University and The University of Montana Banner Systems (03DP-06)

INTRODUCTION

In support of the financial and financial-related audits of Montana State University and The University of Montana, we conducted a limited scope information systems review focusing on selected Banner processing within the SCT Banner control environments. Although the SCT Banner software implemented by the universities is similar in baseline functionality, there is an important distinction between the controls that are delivered with the software and how the MSU and UM university staffs chose to implement or activate the controls.

We conducted the audit work according to generally accepted government auditing standards. We will not formally report the internal control weaknesses we identified; however, these details have been communicated to agency management.

A restricted distribution of an internal memorandum has been provided to LAD staff communicating existence and operation of controls.

BACKGROUND

Both Montana State University (MSU) and The University of Montana (UM) process their student information, financial aid, human resource, and financial data using BANNER software. Banner is a commercial software product developed, maintained and licensed by Systems and Computer Technology (SCT) Corporation. The following module functionality has been implemented by each of the universities.

Finance:

Includes accounts payable, purchasing & procurement, fixed assets, research accounting, general ledger and finance operations, and budget position and control.

Financial Aid:

Handles the daily processing activities of each of the financial aid offices. The system performs calculations to support financial aid budgeting; student needs analysis, and student financial aid benefit packaging.

Human Resource Management:

Includes information needed to administer the university's human resources, such as employment and compensation, position control and staffing, payroll processing and administration of benefits and leave.

Student Information System:

Maintains information related to individual students, such as scheduling, registration, calculating tuition and fees, and recording and monitoring grades.

AUDIT SCOPE AND METHODOLOGY

The primary consideration for setting scope and assessing risk is that SCT Banner is commercial off-the-shelf software. Banner is extensively used for educational institutions both within and outside the United States. Pervasive use and few known difficulties with a mature product are the primary reasons that risk is inherently low for Baseline (delivered) Banner functionality. However, because MSU and UM have modified baseline Banner to perform functions specific to their institutions, risk lies in software modifications. Our audit efforts focused accordingly. Our most recent Banner work performed at MSU was issued May 2001 (01DP-05). UM Banner work was issued May 2002 (02DP-05). Included in the audit scope were objectives to confirm the existence and reaffirm the operation of specific controls over select processes within specific modules.

Student Financial Aid Conclusion

Based on the control testing and updates we performed, we conclude that the identified controls have not significantly changed from the prior MSU and UM Banner audits, and prior audit assurances can be carried forward.

Financial aid testing included ensuring security procedures limit system access and input functions to appropriate individuals, and only authorized users have access to production data. Since student information originates at the US Department of Education (DOE), testing ensured the student records load process operates to ensure DOE records batches are completely transferred to university Banner load files and the data download processes operate to ensure student records information transfer is complete.

Banner processing determines financial aid amounts based on Cost of Education budgets developed by each university's financial aid office personnel. Satisfactory Academic Progress (SAP) policy limits students' eligibility for financial aid and Banner processing assists with monitoring SAP compliance requirements. We reviewed the cost of education budget details, database table objects and financial aid award processes to ensure consistency with respective cost of education rules. We obtained the current Satisfactory Academic Progress (SAP) processing logic and determined assignment of SAP to students operates according to management's description, and correctly determines SAP based on 2.0 GPA for undergraduate and graduate students. We also confirmed specific system generated reports are reasonably constructed to provide necessary information to process users.

Banner Finance Conclusion

Based on the control testing and updates we performed, we conclude that the identified controls have not significantly changed from the prior MSU and UM Banner audits and prior audit assurances can be carried forward.

There is an important distinction between the controls that are delivered with Banner and how university staff implement or activate controls. Banner "baseline" is the term for delivered Banner software functionality. Banner provides the framework for the user to develop a chart of accounts (COA) based on internal account types and fund types. Both MSU and UM use a common chart of accounts for reporting their financial data.

Financial testing included confirming university-developed interface accepts valid transactions for processing while invalid transactions are identified, captured and reported. We reviewed the programming code and determined the logic and references are consistent with intended purpose. We verified that access to change chart of accounts validation and rule operators is limited to appropriate staff. We confirmed that UM-developed programming operated to facilitate month-end reporting and roll-forward of rejected (unposted) transactions to the next accounting period.

Both universities are subject to a reporting change made by the governmental accounting standards board (GASB). We tested to ensure Banner contained the new tables, forms, and details required to operate and provide GASB 35 functionality.

Each university developed a State Interface Process to upload Banner financial information to the state's accounting system, SABHRS. Banner data is extracted via a custom built program that summarizes and translates finance activity to SABHRS format. We extracted the programming and determined the coding is consistent with MSU and UM purpose and process documentation.

MSU uses Banner Research Accounting to track and record grant proposal, award, budget, accounting & billing, and termination. The Inception to Date Report (ITD) provides budget, expenditure, revenue, and billing information to the grantee, and MSU staff. The report is university developed and is used to monitor financial activity over the life of the grant. To determine the Report selects and reports the appropriate information, we obtained the report program coding and confirmed the Banner database sources of the report contents are consistent MSU staff descriptions, documentation and intended report use.

Banner Human Resource

Based on the control testing and updates we performed, we conclude that the identified controls have not significantly changed from the prior MSU and UM audits and prior audit assurances can be carried forward.

UM: All four UM campus locations (Missoula, Butte, Dillon, and Helena) use the same database to record and process HR data. HR staff at each location is responsible for their campus payroll input and output monitoring and reconciliation. UM Missoula campus initiates HR processing for all campus locations. Payroll is processed through a series of user-initiated jobs and a Banner production log is generated to ensure each job is run in the proper sequence.

MSU: All four MSU campus locations (Bozeman, Billings, Great Falls, and Havre) use the same database to record and process HR data. HR staff at each location is responsible for their campus payroll input, for initiating processing, and monitoring and reconciling output. MSU has segmented its Banner database to differentiate between Bozeman and its outlying campuses; therefore, payroll-processing jobs are run against separate campus information rather than consolidated information.

Human Resource testing included confirming system access to critical HR forms restricts incompatible responsibilities and ensuring the process for adding employees, establishing a position, and time entry is controlled. We confirmed security over critical HR forms limits system access and input functions to appropriate individuals, and only authorized users have access to production data.

We identified the database tables used in paycheck calculations, containing current federal and state tax and retirement deduction rates. We validated the system tables contained the accurate rates consistent with Federal and State laws. To ensure controls exist over direct deposits processed by the university's Banner HR systems, we observed the validation controls over the direct deposit feed.

To ensure system changes to Banner baseline processing operate in a controlled environment, we determined the implementation process for system modifications to ensure testing and monitoring is performed in a test environment prior to implementing in production.